Epidemiology 101
Terms and definitions

Age-adjusted rate A rate which has been calculated to control for the effect of age which allows for comparison of rates across populations (e.g. Montana compared to the United States). An age-adjusted rate is a weighted average of the age-specific rates.

Confidence interval A measure of uncertainty which defines the range in which the true value lies with a defined probability, usually 95%.

Crude rate A rate is said to be crude if the measure has not been adjusted for any factor, such as age.

Epidemiology The study of the distribution and determinants of disease in a population. Epidemiology is the science of public health. In Latin, epidemiology means "-ology" study of, "epi-" upon, "demi-" the people.

Incidence Refers to the occurrence of *new* cases of disease among a population at risk of disease over a period of time. Incidence is often reported as a number or rate.

Mortality Refers to death due to a particular cause among a population over a period of time. Mortality is often reported as a number or a rate.

Prevalence Refers to the existing cases of a disease at a particular point in time or over a period of time. Prevalence is often reported as a number or a percentage.

Proportion The comparison of two numbers in which the numerator is part of the denominator. A proportion is a measure of relative frequency. Example: $a/(a+b)$

Rate A measure of the number of events that occur in a defined population with respect to time. A rate may or may not be a proportion. Example: $a/(a+b)$ where a is the number of people experiencing an event during a certain time period and $(a+b)$ is the total number at risk of the event during that same time period.

Ratio The comparison of any two numbers in which the two numbers are separate and distinct quantities. Example: a/b where both a and b refer to the frequency of some event or occurrence.

Standard Error A measure of the statistical accuracy of an estimate. It shows how closely a sample mean estimates the population mean. The standard error is used to calculate confidence intervals.